

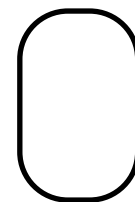
Linear relationships

The following questions refer to Exercise 6.3 in **Heinemann Maths Zone 9 VELS Edition**. If you are unsure of how to do a question, try looking at a worked example or other information in the section shown under the question number. Show all working in the space provided.

Name: _____

Class: _____ Due date: _____

Parent's signature/comment: _____



1

6.3

Draw a set of axes and plot a line using the following points:

(2, 1), (3, 2), (4, 3), (5, 4), (6, 5).

What does every coordinate point have in common?

4

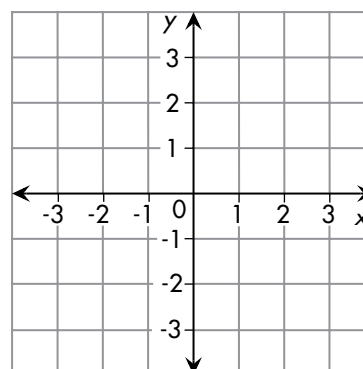
6.3

Plot the line with the equation $y = 2x - 4$.

gradient is _____

x-intercept is _____

y-intercept is _____



2

6.3

Draw a set of axes and plot a line using the following points:

(-1, 1), (-1, 2), (-1, 3), (-1, 5).

What does every coordinate point have in common?

5

6.3

Show that the point (2, 1) lies on the line of equation $y = 4x - 7$.

3

6.3

Complete this table.

	Equation	y-intercept	Gradient
(a)	$y = 2x - 3$		
(b)	$y = -x + 4$		
(c)	$y = 5 - 4x$		
(d)	$y = -x$		
(e)	$y = 2$		

6

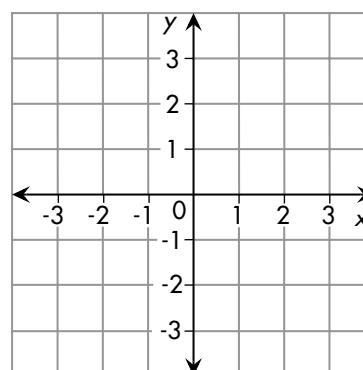
6.3

Plot the line with the equation $y = 3 - x$.

gradient is _____

x-intercept _____

y-intercept _____

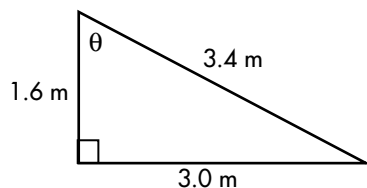


Replay questions

The following questions are from earlier chapters of the textbook or from last year. If you have difficulty, look at the relevant section or Replay Worksheet or ask your teacher. Show all your working in the space provided.

R1

5.5

Find the size of θ .**R3**

4.9

Factorise these quadratic trinomials.

(a) $x^2 + 3x + 2$

(b) $x^2 - 4x - 5$

R2

5.3

In the right-angled triangle above, find the size of angle θ in degrees correct to two decimal places.

R4

4.9

Factorise each of the following quadratic trinomials.

(a) $x^2 - 5x - 24$

(b) $x^2 + 12x + 36$

Problem solving: Happy families

Three men of the same family live in the same house in Campbell Street. The oldest man, Bob, is twice as old as his son, Bill. Bill is twice as old as his son, Brett, and the total of their ages is 147. How old is each man?



Let Brett be x years old. Then how old are Bill and Bob?